

AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method to effectuate multiple transaction prices for a commodity, which is carried out by an exchange server, wherein transaction prices are always equal to ~~the~~ common prices submitted by both buyers and sellers, ~~comprises~~ comprising the steps of:
 - (A) receiving a packet of trading requests that comprises at least one trading request, wherein a remote trader who is a buyer or seller, ~~though~~ can optionally indicated a plurality of matching priority parameters, and must indicate a commodity symbol, a price number, a buy or sell decision, and ~~the~~ a quantity to be traded;
 - (B) generating ~~a pairing element~~ elements after validating each trading request of ~~a said~~ packet and ~~by~~ attaching a sequence number to each validated trading request;
 - (C) pairing the pairing elements in a matching table, said pairing step further comprising the steps of:
 - (C1) sending ~~a the~~ pairing ~~element~~ elements to ~~a the~~ matching table according to the indicated commodity symbol and price number;
 - (C2) separating the pairing elements of the matching table into two sides, ~~the~~ a buying side that contains pairing elements indicating a buy and ~~the~~ a selling side that contains pairing elements indicating a sell; and
 - (C3) summing ~~the~~ submitted quantities of each side's pairing elements, comparing the two, and designating ~~the~~ a side of a smaller sum as ~~the~~ a short side, and ~~the~~ a side of a larger sum as ~~the~~ a long side;
 - (D) matching on each matching table pairing elements of the short side with the pairing elements of the long side, further comprising the steps of:

- (D1) setting an initial matched quantity of each pairing element to be zero, and an initial unmatched quantity of each pairing element to be ~~it's~~its submitted quantity;
- (D2) selecting by a default method a pairing element from the short side and identifying the matching priority parameter indicated, if any;
- (D3) selecting from the long side the pairing element of the earliest request submission time if the short side pairing element indicates so or does not indicate any matching priority parameter, or selecting by a default method a pairing element from the subset of the long side's pairing elements whose account profiles contain the matching priority parameter indicated by the short side's pairing element;
- (D4) matching the two elements selected in steps (D2) and (D3) and setting new matched and unmatched results of the remote trader;
- (D5) repeating steps (D3) and (D4) for ~~the a~~ next pairing element of the long side until the short side pairing element's matching opportunity is exhausted;
- (E) displaying ~~the~~ effectuated multiple transaction prices and corresponding matched and unmatched quantities in tabular data or charts, wherein ~~the a~~ price distribution of a commodity and distributions of several market indices can be directly observed by remote traders,

wherein said steps (a) through (E) are preceded by a setup step of establishing an account profile database containing traders' account information, a transaction price database containing a plurality of predetermined price numbers, a commodity symbol database containing a plurality of the symbols of predetermined trading commodities, a matching priority parameter database containing a plurality of predetermined matching priority parameters, and a matrix of matching tables indexed by predetermined price numbers and commodity symbols, wherein validated trading requests of same submitted price and commodity symbol are to be gathered and matched.

2. (Canceled)

3. (Currently Amended) The method of claim 1 wherein said steps are conducted continuously or at regular time intervals by said exchange server.

4. (Currently Amended) The method of claim ~~2~~ 1 wherein said matching priority parameters include~~[[,]] but not limited to~~ the request submission time, the submitted quantity, a settlement agency employed, a warehouse employed for delivery, or a distance between the remote trader and the exchange.

5. (Currently Amended) The method of claim ~~2~~ 1 wherein said account profile database includes ~~but not limited to a user's~~ the remote trader's identification, contact information, and other account information that may be also indicated as matching priority parameters, such as settlement agency employed as well as warehouse employed for delivery.

6. (Currently Amended) The method of claim 1 wherein said packet of trading requests of step (A) is sent to the exchange server through a communications network by ~~a~~ the remote trader.

7. (Currently Amended) The method of claim 6 wherein said communications network includes the World Wide Web, ~~the~~ a Wireless Application Protocol network, the Internet, a Local Area Network, or a proprietary network.

8.. (Currently Amended) The method of claim 1 wherein said step (A) for receiving the packet of trading requests from ~~a~~ the remote trader further comprises the step of authenticating the remote traders' identification and password.

9. (Currently Amended) The method of claim 1 wherein said step (A) for receiving the packet of trading requests from ~~a~~ the remote trader further comprises the step of assigning the receiving time as the request submission time of the packet of trading requests.

10. (Original) The method of claim 1 wherein said default method of (D2) includes a selection by request submission time or random drawing.

11. (Original) The method of claim 1 wherein said default method of (D3) includes a selection by request submission time or random drawing.

12. (Currently Amended) The method of claim 1 wherein said matched and unmatched results of step (D4) are stored in ~~the~~ a matched result database and ~~the~~ an unmatched result database, respectively.

13. (Currently Amended) The method of claim 1 wherein said tabular data or charts of step (E) convey ~~a~~ the remote trader's own trading information including the content of his/her trading requests, matched results, and unmatched results.

14. (Currently Amended) The method of claim 1 wherein said tabular data or charts of step (E) convey also the latest trading information of a commodity that contains at least ~~the~~ effectuated transaction prices, and ~~the~~ corresponding total matched as well as unmatched quantities.

15. (Currently Amended) The method of claim 1 wherein said tabular data or charts of step (E) further conveys trading information of various groups of commodities and ~~the~~ an aggregate market as represented by several ~~trading market~~ trading market indices.

16. (Original) The method of claim 1 wherein said tabular data or charts of step (E) are sent to remote traders automatically or after receiving an inquiry of trading information.

17. (Currently Amended) A system to effectuate multiple transaction prices for a commodity, wherein transaction prices are always equal to ~~the~~ common prices submitted by both buyers and sellers, ~~comprises comprising~~ comprising an exchange server coupled to a plurality of trader terminals over a communications network, the exchange server further comprising:

means for generating a packet of trading requests for a remote trader to submit relevant trading information,

means for receiving ~~a~~the packet of trading requests or an inquiry of trading information,

means for generating pairing elements from said trading requests,

means for generating a matrix of matching tables to match said pairing elements,

means for determining ~~the~~a short side and ~~the~~a long side of one of the matching ~~table~~tables,

means for matching ~~a~~one of the pairing ~~element~~elements of the short side with ~~a~~one of the pairing ~~element~~elements of the long side,

means for calculating matched quantities and unmatched quantities,

means for displaying trading information in tabular data or charts that enable direct observation of discrete price distributions,

means for sending the trading information to remote traders, and

means for ~~the~~ storage of various software programs and databases.

18. (Currently Amended) The system of claim 17 wherein said communications network includes the World Wide Web, ~~the~~a Wireless Application Protocol network, the Internet, a Local Area Network, or a proprietary network.

19. (Currently Amended) The system of claim 17 wherein said means for receiving a packet of trading requests or an inquiry of trading information is further for authenticating ~~the~~an identification of the remote trader and assigning ~~the~~a receiving time as ~~the~~a request submission time of the packet of the trading requests.

20. (Currently Amended) The system of claim 17 wherein said packet of trading requests comprises as least one trading request on which ~~a~~the remote trader~~[[,]]~~ ~~though~~ can optionally indicate a plurality of matching priority parameters, and must indicate at least a commodity symbol, a transaction price, a decision to buy or sell, and ~~the~~a quantity to be traded.

21. (Currently Amended) The system of claim 20 wherein said matching priority parameters include[[,]] ~~but not limited to, the~~ a request submission time, the trading quantity, a settlement agency employed, a warehouse for delivery, or the distance between the remote trader and the exchange server.

22. (Original) The system of claim 17 wherein said means for generating pairing elements from trading requests is further for validating each trading request and attaching it with a sequence number.

23. (Original) The system of claim 17 wherein said means for determining the short side and the long side of a matching table further comprises means for comparing the sum of all pairing elements indicating a buy decision with the sum of all pairing elements indicating a sell decision.

24. (Currently Amended) The system of claim 17 wherein said means for matching ~~a one of the pairing element elements~~ of the short side with ~~a one of the pairing element elements~~ of the long side further comprises:

~~means a first selector~~ for selecting said pairing element of the short side based on request submission time or random drawing,

~~means a second selector~~ for selecting said pairing element of the long side based on request submission time, when said short side ~~paring pairing~~ element indicates so or does not indicate any matching priority parameter, and,

~~means a third selector~~ for selecting said pairing element of the long side based on request submission time or random drawing when said short side pairing element indicates at least a matching priority parameter, the ~~means third selector~~ further comprising:

~~means a finding device~~ for finding a subset of the long side pairing elements whose account profiles contain the matching priority parameter indicated in said short side pairing element.

25. (Currently Amended) The system of claim 17 wherein said means for calculating matched quantities and unmatched quantities further comprises ~~means~~ a determining device for determining if a pairing elements's matching opportunity is exhausted.

26. (Original) The system of claim 25 wherein said pairing element's matching opportunity is exhausted when its unmatched quantity reaches zero or falls below a minimum lot size.

27. (Currently Amended) The system of claim 17 wherein said tabular data or charts convey a remote trader's own trading information including ~~the~~ a content of his/her trading requests, matched results, and unmatched results; ~~the~~ trading information of a commodity including ~~the~~ effectuated transaction prices, ~~and the~~ corresponding total said matched as well as unmatched quantities; and ~~the~~ trading information of various groups of commodities as well as ~~the~~ an aggregate market as represented by several ~~trading~~ market indices.

28. (Original) The system of claim 17 wherein said trading information is sent to remote traders automatically or after receiving an inquiry.

29. (Currently Amended) The system of claim 17 wherein said data bases comprise an account profile database containing ~~user's~~ traders' account information, a transaction price database containing a plurality of predetermined price numbers, a commodity symbol database containing a plurality of the symbols of predetermined trading commodities, a matching priority parameter database containing a plurality of predetermined matching priority parameters, a matched result database, and an unmatched result database.